16. A method as recited in claim 4 wherein said determining said higher frequency includes retrieving a higher frequency value from a memory.

17. A method as recited in claim 16 wherein said higher frequency was specified by a user of said interface device.

18. A method as recited in claim 4 wherein said low frequency is combined with said higher frequency to provide said resulting signal only when said commanded low frequency is under a predetermined threshold frequency.

19. A haptic feedback interface device for providing a tactile sensation, the interface device comprising:

a sensor operative to detect motion of a user manipulandum, said sensor providing sensor data representative of said motion;

an actuator device operative to output tactile sensations on said user manipulandum or a housing of said interface device, wherein said actuator device includes a inertial mass that is oscillated to provide said tactile sensation; and

a controller providing a signal to said actuator device to cause said actuator device to output said tactile sensation to said user, at least a portion of said signal having a higher frequency, and wherein said tactile sensation conveys a low frequency that was commanded to said tactile device.

20. A haptic feedback interface device as recited in claim 19 wherein said signal provided by said controller includes higher frequency bursts that are output at said commanded low frequency.

21. A haptic feedback interface device as recited in claim 19 wherein said entire signal provided by said controller has said higher frequency, and wherein said higher frequency signal varies in amplitude according to said commanded low frequency.

22. A haptic feedback interface device as recited in claim 21 wherein said signal provided by said controller is based on filtering a signal having said commanded low frequency and filtering a signal having said higher frequency.

23. A haptic feedback interface device as recited in claim 22 wherein said filtering uses a low pass filter and a high pass filter.

24. A haptic feedback interface device as recited in claim 21 wherein said signal provided by said controller is based on using a resonant filter by providing an envelope based on a signal having said low frequency and modulating a signal having said higher frequency using said envelope, said higher frequency being approximately a resonant frequency of a mechanical actuator system of said interface device.

25. A haptic feedback interface device as recited in claim 19 wherein said actuator device includes a flexure and an actuator, wherein said actuator is oscillated as said inertial mass.

26. A haptic feedback interface device as recited in claim 19 wherein said controller includes a local microprocessor separate from a host computer in communication with said interface device.

27. An apparatus for providing tactile sensations using an inertial actuator, the apparatus comprising:

means for receiving a commanded low frequency at which to output a tactile sensation to a user of said interface device;

means for determining a higher frequency; and

means for combining said low frequency with said higher frequency to provide a resulting signal used to output a tactile sensation at said higher frequency, said tactile sensation conveying said commanded low frequency to said user.

28. An apparatus as recited in claim 27 wherein said signal provided by said controller includes higher frequency bursts that are output at said commanded low frequency.

29. An apparatus as recited in claim 27 wherein said combining includes creating a waveform having said higher frequency, said waveform having an amplitude that varies according to said commanded low frequency.

30. A method for combining two or more tactile sensations to be output by a tactile feedback interface device, the method comprising:

receiving a plurality of commanded effect waveforms to be output simultaneously by said tactile feedback interface device to a user of said interface device;

filtering each of said effect waveforms using a low pass filter and a higher pass filter to produce a low passed waveform and a high passed waveform, respectively, for each of said effect waveforms;

for each of said effect waveforms, multiplying said high passed waveform from a particular effect waveform with an envelope comprised of a summation of said low passed waveforms from each of said effect waveforms other than said particular effect waveform, thereby producing a plurality of product waveforms;

summing said plurality of product waveforms to produce an output waveform; and

providing said output waveform for output by an actuator device to a user of said tactile feedback interface device.

31. A method as recited in claim 30 further comprising normalizing said low passed waveform and said high passed waveform.

32. A method as recited in claim 31 further comprising adding, for each of said effect waveforms, said high passed waveform to said associated product waveform.

33. A method as recited in claim 30 wherein a program running on a host computer in communication with said interface device receives said plurality of commanded effect waveforms.

34. A method as recited in claim 30 wherein a local microprocessor of said interface device receives said plurality of commanded effect waveforms.

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